

REMARKS

AMENDMENTS

Claims 92-99 and 101-104 are currently pending. Claim 100 is cancelled without prejudice. The limitation of claim 100 is incorporated into claim 92. The phrase “or tetrahydroindenyl” is derived from original claim 10 and the specification as filed. No new matter is added. Further, the phrase “comprising a zirconium or hafnium” is added to claim 92, such limitation found at least at paragraph [0054], page 25. No new matter is added.

Claims 101 to 104 are amended to correct the claim dependencies in light of the cancellation of claim 100.

CLAIM REJECTIONS – 35 USC § 103

Claims 92-104 stand rejected under 35 U.S.C. § 103 as being obvious in light of *Weng et al.* (U.S. Patent No. 6,225,432; hereafter “Weng”). Applicants traverse this rejection, as *Weng* does not disclose the claimed process.

Applicants thank the Examiner for the phone interview of May 21, 2008. The Examiner indicated allowability of the claims upon a showing of unexpected results in the claimed invention.

There is simply no teaching in *Weng* of “the molar amount of the second metallocene catalyst compound is greater than the molar amount of the first metallocene catalyst compound,” nor of the specific combination of the two 2,4- and 4,7-substituted metallocenes. There is only mention of the possibility of two or more catalysts being combined in the dependent claims of *Weng*, and no suggestions as to the amounts that each should be added, or the identity of either. The MPEP, citing *KSR v. Teleflex*, states that “the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious . . . rejections based on obviousness cannot be sustained by mere conclusory statements.”¹ The Applicants contends that the Examiner has done just this, and has not articulated a reason why someone skilled in the art would look to *Weng* to

¹ MPEP § 2141, 2100-119.

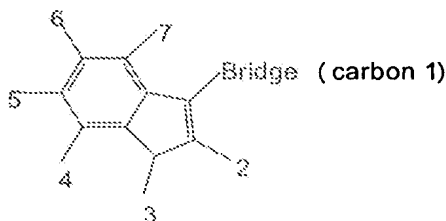
combine two specific classes of metallocenes in the ratio specified to arrive at a polymer indicated.

However, even if there were a showing, a *prima facie* case can be rebutted by unexpected results.² The Applicants find unexpected results in the claimed combination of a 2,4- and a 4,7-substituted bis-indenyl metallocene. This is shown in the following:

- The combination of the 2,4- ("Q" in Table 1) and the 2-substituted indenyl metallocene ("L" in Table 1) does not result in a polymer with vinyl groups, whereas the combination of the 2,4- and 4,7-substituted metallocene ("B" in Table 2) does result in a polymer with vinyl groups; this is the case even though the 2-substituted indenyl metallocene "L" alone does produce vinyl groups, as shown in Table 1;
- There is a strong synergistic effect in combining the 2,4- and 4,7-substituted indenyl metallocenes that is not seen with the combination of the 2- and 2,4-substituted indenyl metallocenes. See the catalyst productivity values in Table 1 versus those in Table 3, wherein there is a large increase in productivity for the "Q" and "B" or "Q" and "A" (4,7-disubstituted bis-tetrahydroindenyl) combination, but the combination of the "Q" and "L" does not have a productivity higher than its singular constituents.

The Applicants thus request that the rejection be withdrawn.

As requested by the Examiner,³ the Applicants illustrate the claimed substitution patterns in the indenyl structures below:



The present claims call for each metallocene to be bridged, that is, have a bridging structure between two indenyls, and for each indenyl to be substituted; one metallocene has a 2,4-substitution (the 2 and the 4 positions are both substituted, with a hydrogen atom at the 3 and 5-7 positions), and the other a 4,7-substitution. The numbers refer to the position on the indenyl ring.

² *Id.* at § 2145, 2100-162.

³ Final Rejection, page 5, paragraph 7.

It is believed that all objections and rejections having been overcome and this application is in condition for allowance. If necessary to affect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to affect a timely response. Please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1712 (Docket No. 2002B147/2).

Respectfully submitted,

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Date

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